

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

#### **IN CLAIM:**

Cancel claims 4, 6-7, 11-19, and 21-22

### ***Reasons for Allowance***

2. Claims 1-3, 5, 8-10, 20 and 23-31 are allowed.

3. The following is an examiner's statement of reasons for allowance:

The prior art of record neither anticipates nor renders obvious all the limitations in independent claim 1. Specifically the combination of a field-effect transistor, comprising:

a doped channel region arranged along a first depression,  
a doped first terminal region near an opening of the first depression,  
a doped second terminal region remote from the opening, the second terminal comprising a connecting region extending up from a portion of the second terminal region approximately as far as a surface containing the opening or being electrically conductively connected to an electrically conductive connection leading to the surface.

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a control region arranged in the first depression, an electrical insulating region between the control region and the channel region, and

a second depression between the first terminal region and the connecting region,

the field-effect transistor being a drive transistor at a word line or at a bit line of a memory cell array, where the first depression is the only depression of the field effect transistor in which the control region is arranged, and where the first depression is a straight trench.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. The following patents and published patent applications are cited to further show the status of the art with respect to similar trench field effect transistor devices.

Witek (US Patent 5,886,382)

Goebel et al. (US Patent 6,376,313)

Tihanyi (US Patent 6,507,071)

Nemati et al. (US Patent 6,756,612)

Mori (US Patent 5,160,491)

Mohammad (US Patent 5,385,853)

Grebs et al. (US 6,680,232)

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARAH K. SALERNO whose telephone number is (571)270-1266. The examiner can normally be reached on M-F 8:00-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wael M Fahmy/  
Supervisory Patent Examiner, Art  
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/S. K. S./  
Examiner, Art Unit 2814